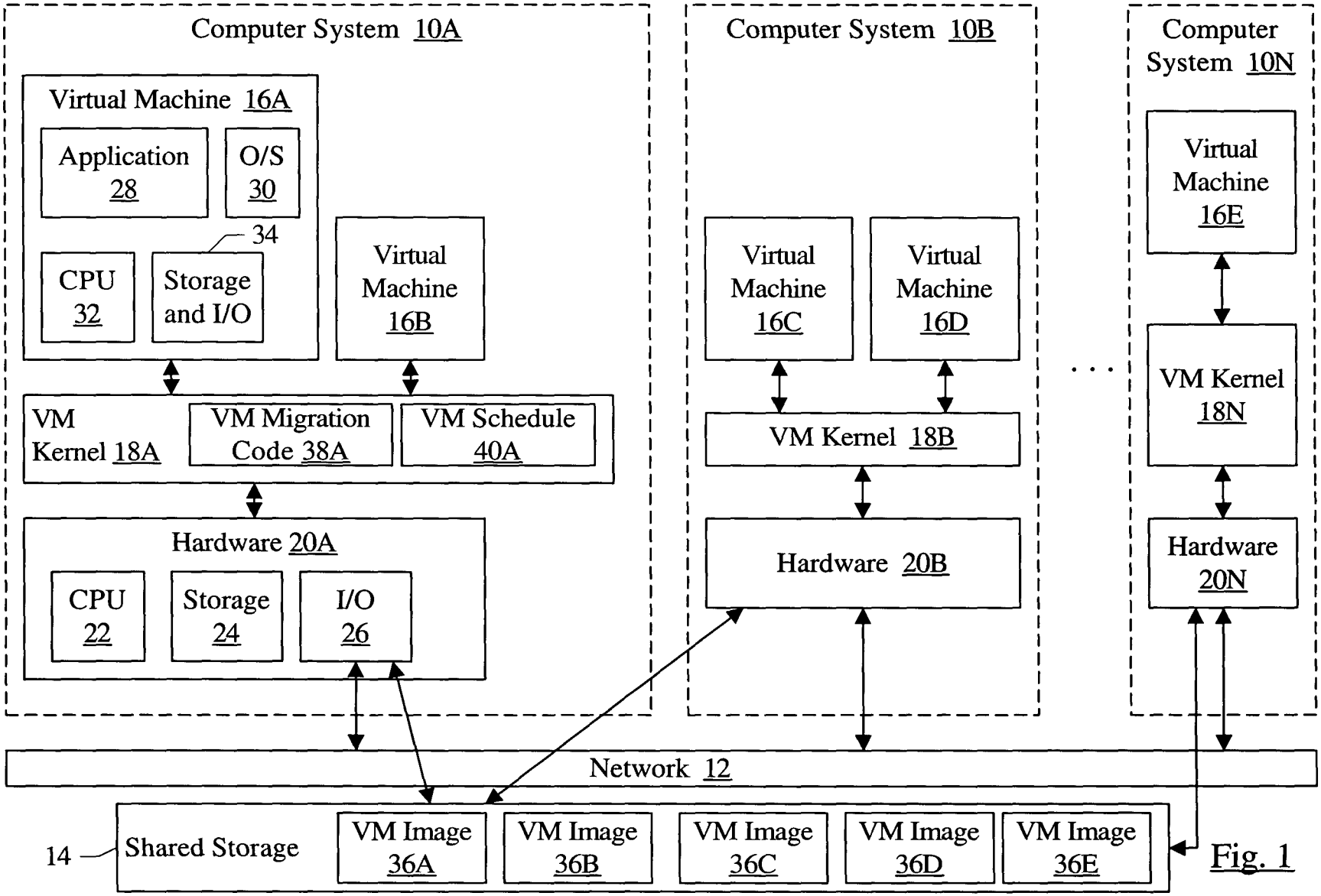
Computer System 10A
Virtual Machine 16A
Application 28
O/S 30
34
CPU 32
Storage and I/O
Virtual Machine 16B
VM Kernel 18A
VM Migration Code 38A
VM Schedule 40A
Hardware 20A
CPU 22
Storage 24
I/O 26
Computer System 10B
Virtual Machine 16C
Virtual Machine 16D
VM Kernel 18B
Hardware 20B
Computer System 10N
Virtual Machine 16E
VM Kernel 18N
Hardware 20N
Network 12
14
Shared Storage
VM Image 36A
VM Image 36B
VM Image 36C
VM Image 36D
VM Image 36E

Fig. 1

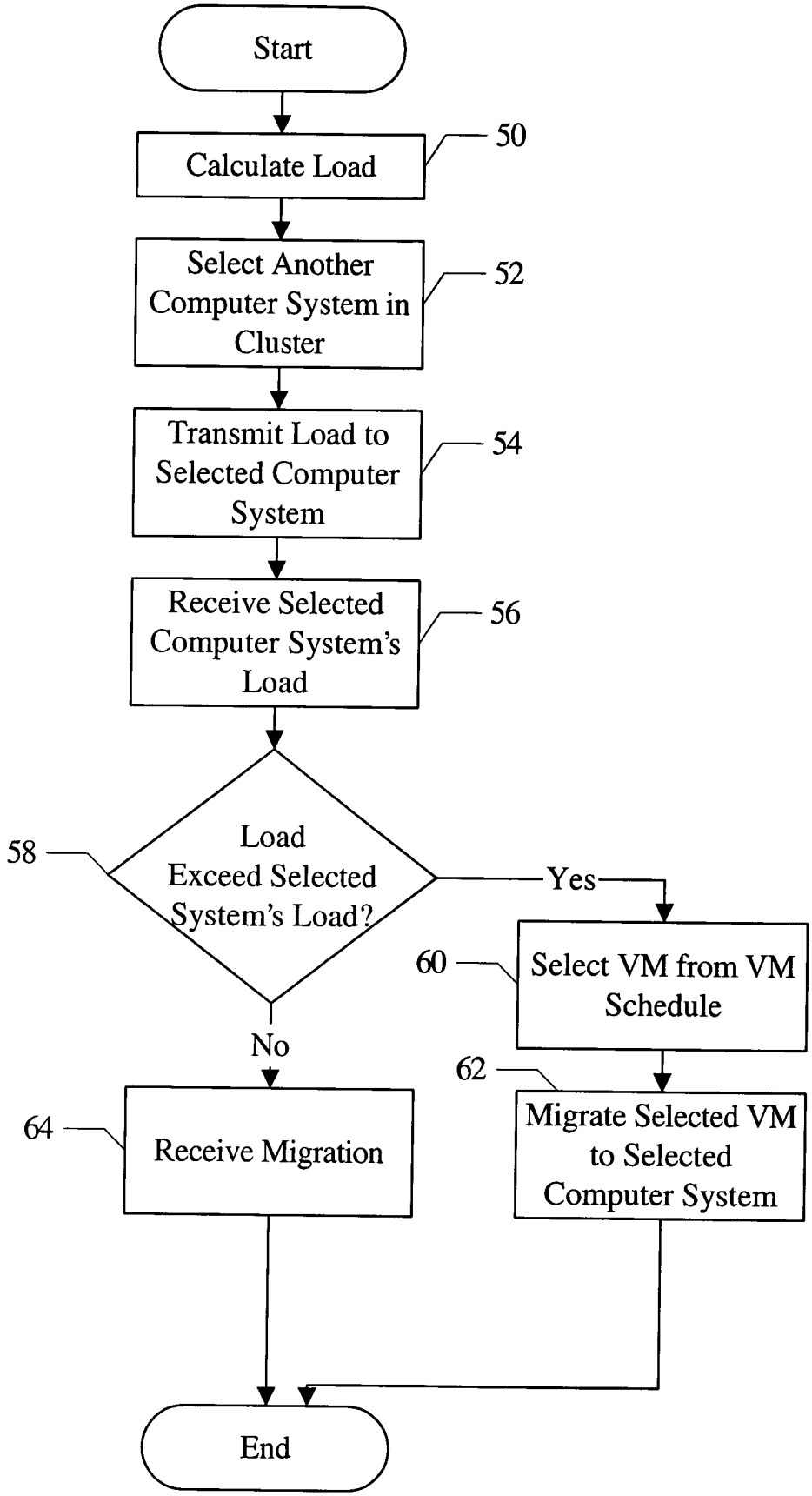
Start
Calculate Load
50
Select Another Computer System in Cluster
52
Transmit Load to Selected Computer System
54
Receive Selected Computer System's Load
56
58
Load Exceed Selected System's Load?
Yes
60
Select VM from VM Schedule
62
Migrate Selected VM to Selected Computer System
No
64
Receive Migration
End

Fig. 2

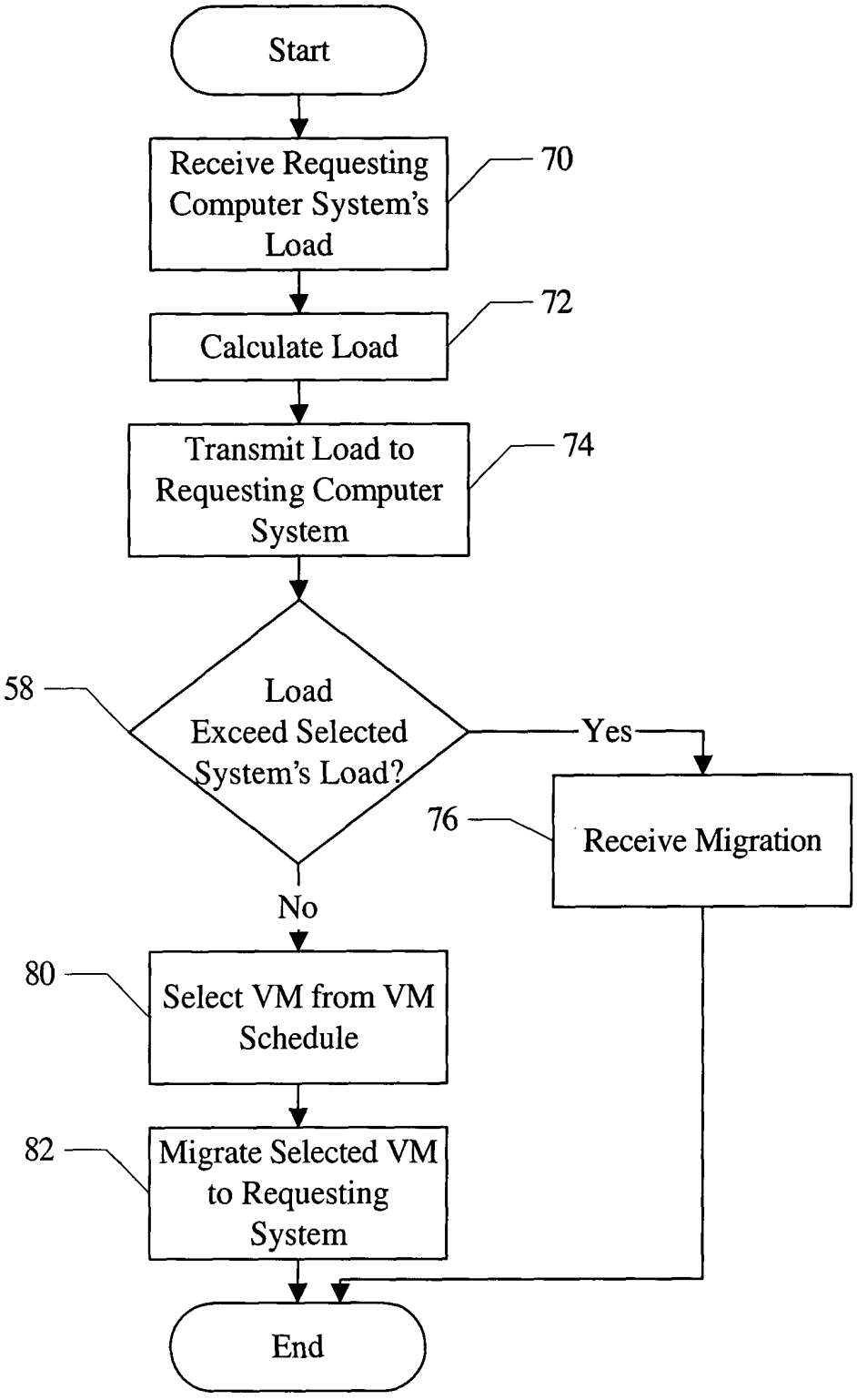
Start
Receive Requesting Computer System's Load
70
Calculate Load
72
Transmit Load to Requesting Computer System
74
58
Load Exceed Selected System's Load?
Yes
76
Receive Migration
No
80
Select VM from VM Schedule
82
Migrate Selected VM to Requesting System
End

Fig. 3

$$Load = W_{CPU} * CPUTime + W_{I/O} * I/O\ Activity + W_{Mem} * Memory\ Pages$$

Fig. 4

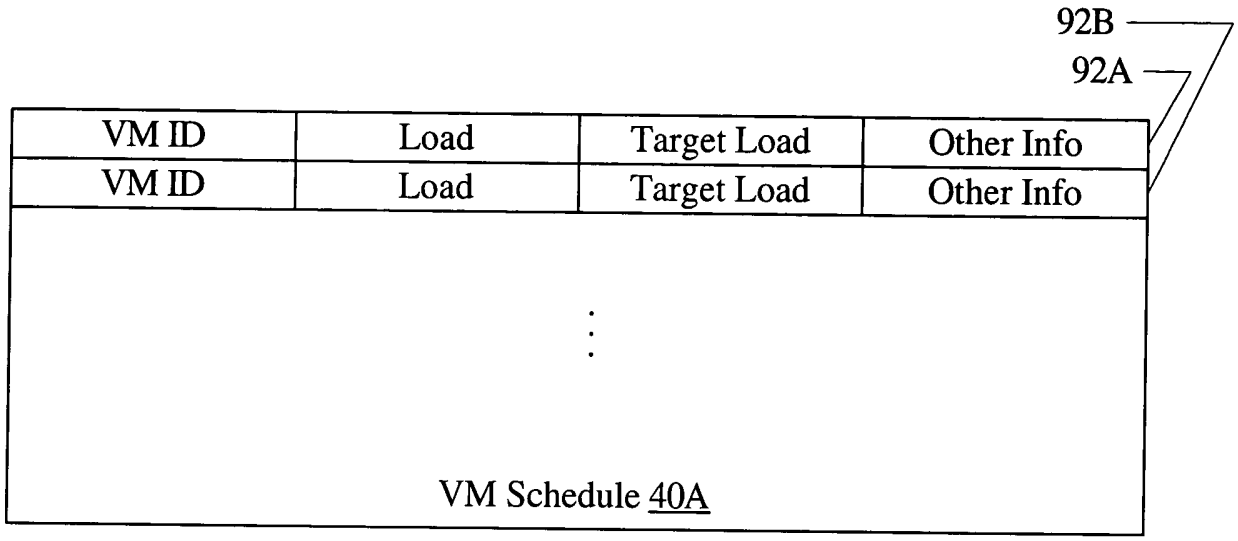

Fig. 5

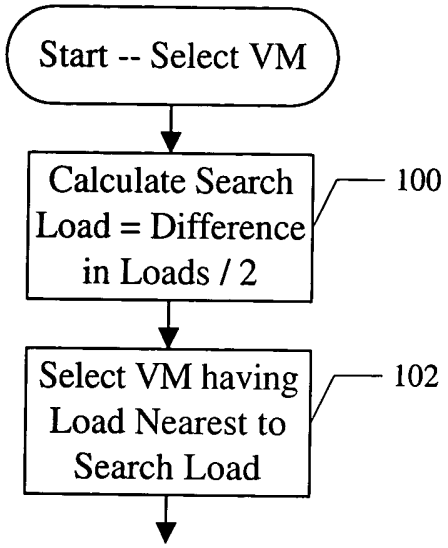

Fig. 6

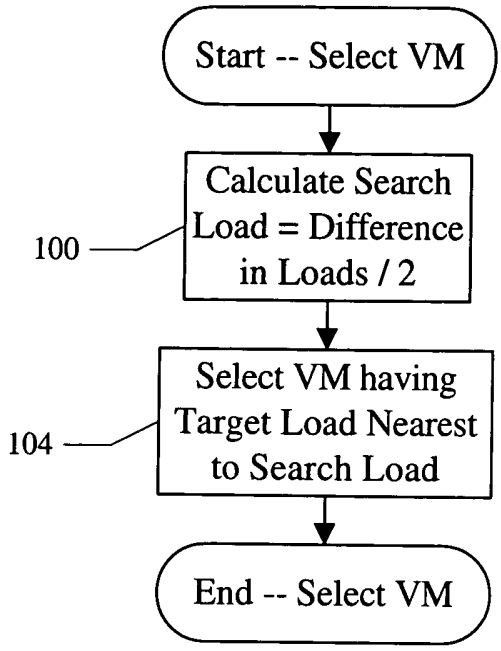

Fig. 7

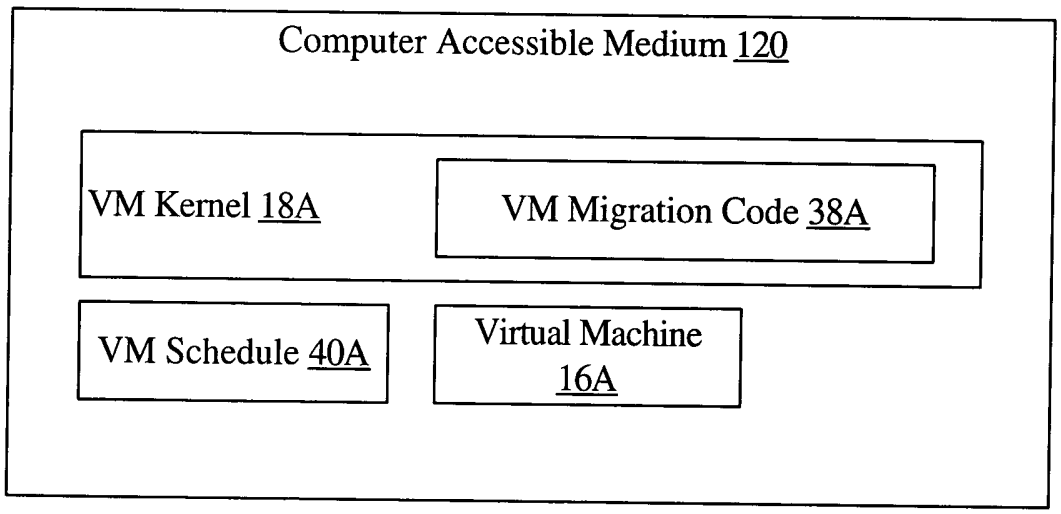

Fig. 8